

## **Electric Vehicle Charging System in Single Family Residence Plan Review and Permitting Requirements**

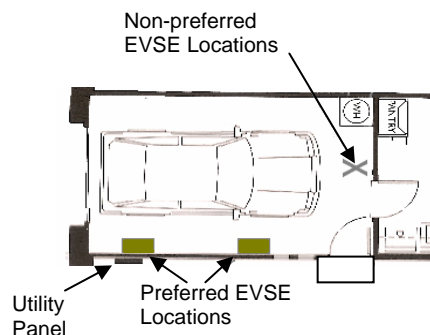
There are two levels of electric vehicle (EV) charging system for single family residence (one- and two-family dwellings) installations: Level 1 (120 VAC, 15/20 A) and Level 2 (240 VAC, 40A). An electrical permit is required for all EV charging systems installed in a single family residence (SFR). Additionally a mechanical permit is required when the manufacturer's installation guidelines require mechanical ventilation. Permits may be obtained on-line or over-the-counter for EV charging system installations.

### **Electrical Permit:**

Electrical plans are not required to be submitted to the Building Division; that is, an electrical permit will be issued without an electrical plan review. However, please note that the electrical plans and manufacturer's installation guidelines will be reviewed by the City's Field Inspector at the job site during inspection. Additionally, load calculations, per California Electrical Code, Article 220 shall be provided for the City's Field Inspector's review when the service panel rating is 125 amperes or less. Electrical panel upgrades and electrical wiring shall be in conformance with the current edition of the California Electrical Code (CEC).

The following information is required on the plans:

1. Specify the type of EV charging system: Level 1 or Level 2. Provide the UL listing number, or the listing number of another approved nationally recognized testing laboratory, in compliance with UL2202: "Standard for Electric Vehicle Charging System Equipment".
2. Specify the panel rating of the existing electrical service (e.g. 200 amp service) at the residence. Indicate the EV charging system load and circuit size.
3. Indicate if a second electric meter installation is required due to special electric utility rates available for EV charging.
4. Specify the proposed location of the EV charging system. EV charging system equipment shall be installed in accordance with manufacturer's written guidelines and shall be suitable for its intended location (indoor/outdoor).



**Mechanical Permit:**

1. When mechanical ventilation is required, mechanical plans are not required to be submitted to the Building Division for review; that is, a mechanical permit will be issued without a mechanical plan review.
2. Manufacturer's written installation guidelines shall be available on site for the City's field inspector.